

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: "Ray L. Mote" <rmote@rain.org>  
Subject: Re: "A <crown> M"  
Message-ID: <Pine.SUN.3.93.960519113107.19423C-100000@coyote.rain.org>

Standard WW2 British Air Ministry markings. These tags usually accompanied the standard Signal Corps id plates on equipment used by both. SCR-522 and AN/ART-13 were two such equipments. Now, if we only had the \*listing\* of those Air Ministry reference numbers!!

73.....Ray Mote, W6RIC <rmote@rain.org>

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: Bob Roehrig <broehrig@admin.aurora.edu>  
Subject: 20-A / VFO questions  
Message-ID: <Pine.ULT.3.91.960519200446.25741B-100000@admin.aurora.edu>

Just received a Central Electronics 20A and while waiting for a manual I have maybe a few questions (some that are probably not covered in the manual:

Years ago I had a 20A and it used a modified Command transmitter for a VFO (drifty bugger, too). Can someone tell me what frequencies it put out for each band and how that was accomplished (shift fundamental, multiply, whatever)?

Checked all tubes and had a few bad ones. No sweat on the 6AG7's, fortunately I had a few, but I do need a 6BA7. Can buy a new one but would rather trade something (other tubes, for example). Any takers?

Unit looks unmodified except for an extra pot on rear of chassis and 2 extra 1uF caps paralleled across an original cap of undetermined value. One end goes to one end of the extra pot. Will see when I get the schematic - I suspect it is time constant for VOX or something.

Has anyone with a 20A tried using it on any WARC bands? Just wondered if tuning range on any existing bands is wide enuf to hit the newer bands.

Any other "secrets" or mods I should know about?

E-mail broehrig@admin.aurora.edu 73 de Bob, K9EUI  
CIS: Data / Telecom Aurora University, Aurora, IL

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: Gary Mitchelson <garym@cais.cais.com>  
Subject: AM-1178 Manual wanted  
Message-ID: <2.2.32.19960519184633.0072ba58@cais.com>

I am looking for a manual for a AM-1178 RF amp 400-600 Mhz.  
It was a part of a T-302 transmitter.

Can anyone help?

Gary Mitchelson  
Racal Recorders, Inc.  
garym@racalrecord.com  
N3JPU

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: nielw@ix.netcom.com (Niel Wiegand)  
Subject: Any HRO 50 or 60 articles?  
Message-ID: <199605182331.QAA07083@dfw-ix1.ix.netcom.com>

I'm trying to pull together an index of articles related to gear by the  
National Radio Company. I'll tack it on to the end of my National Tour  
at <http://www.zynet.com/~johnb/bawebpg.htm>.

I've not been able to find any articles reviewing the HRO 50 or HRO 60.

Has anyone seen any magazine articles on these two classics?

73, Niel - WA5VLZ

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: nielw@ix.netcom.com (Niel Wiegand)  
Subject: Re: Any HRO 50 or 60 articles?  
Message-ID: <199605191144.EAA19435@dfw-ix3.ix.netcom.com>

You wrote:

>

>>I've not been able to find any articles reviewing the HRO 50 or HRO  
60.

>>

>>Has anyone seen any magazine articles on these two classics?

>>

>Niel,  
>  
>I have an index to early QST articles and according to my search here  
is all  
>I find:  
>  
>QST Nov 1950 Broadcast coils for the HRO-50 p. 53  
>QST June 1950 Noise Limiter for the HRO-M p.34  
>QST June 1950 Six meter coils for the HRO p. 26  
>QST jan 1954 Subband markings for HRO Coils p.63  
>QST Feb 1955 S.S.B. Adapter Connections for the HRO-60 p.38  
>

Dave,

Thanks for the feedback. Your list points out what I discovered. Two major receivers by National that were in production for a total of over ten years were never reviewed, only modified, in the ham magazines.

BTW, I've found the FBT0 index by Didah Publishing to be invaluable. It's only short coming is that it only covers from 1945 - 1990. I'm always looking for pre-1945 info.

73, Niel - WA5VLZ

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: Bob Roehrig <broehrig@admin.aurora.edu>  
Subject: Re: Any HRO 50 or 60 articles?  
Message-ID: <Pine.ULT.3.91.960519101228.21807B-1000000@admin.aurora.edu>

> >Niel,  
> >  
> >I have an index to early QST articles and according to my search here  
> is all I find:  
> >  
> >QST June 1950 Noise Limiter for the HRO-M p.34

Does anyone have this article? I would appreciate a copy of it. My collection of QST stops at the end of WW2.

E-mail broehrig@admin.aurora.edu 73 de Bob, K9EUI  
CIS: Data / Telecom Aurora University, Aurora, IL

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: nielw@ix.netcom.com (Niel Wiegand)  
Subject: Re: Any HRO 50 or 60 articles?  
Message-ID: <199605191730.KAA11562@dfw-ix4.ix.netcom.com>

You wrote:

>

>Niel:

>Do you happen to have the addr or phone # of DiDah Publishing?

>That index sounds handy to have.

>TNX/73 de Chas W8KUX

>chas@nmaa.org

>

>

Chas,

FBT0 (from Beverage to Oscar) runs on practically any Intel processor based machine with at least 3.5 MB of Hard Disk. (It works fine on my '286 based "laptop" and on my '486 machine.)

FBT0 is a software/database index of the major Ham Magazines. Mine (version 2.01) covers QST '45-'90 (with scattered refs 1915-1945), CQ '45-'90, Ham Radio '68-'90, 73 '60-'90, Radio Communications (RSGB) '79-'90 plus a bunch of other minor refs (but not Electric Radio). It sure does beat dragging out all of those Dec issues every time I want to find something.

Their address is PO Box 7368 Nashua, NH 03060 and their phone is (AC) 603-878-3628. I don't have current pricing information.

73, Niel

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: "Dick Dillman" <ddillman@igc.apc.org>  
Subject: Re: Any HRO 50 or 60 articles?  
Message-ID: <62546.ddillman@igc.apc.org>

On Sat, 18 May 1996 18:27:57 -0500 (CDT),  
Niel Wiegand <nielw@ix.netcom.com > wrote:

>I've not been able to find any articles reviewing the HRO 50 or HRO 60.

>

>Has anyone seen any magazine articles on these two classics?

Niel, there is what I consider to be an excellent article on the HRO by Elton Byington in the 1992/1993 issue of Fine Tuning's Proceedings. Called "HRO: Partrait of a Classic", the article covers

the development of the receiver from the AGS through the "Helluva Rush Order" and on to the HRO-600. It includes a comparison of the single-conversion '50 and the double-conversion '60 (the '50 wins).

For those who may not be aware of it, Fine Tuning's Proceedings is an outstanding annual publication worth the attention of any BA enthusiast (although coverage extends beyond classic receivers to antennas, propagation and modern equipment). I purchased all the back issues.

Fine Tuning's Special Publications  
c/o John Bryant  
Rt. 5, Box 14  
Stillwater, OK 74074

Dick Dillman  
WPE2VT N6VS ex-WA2BJK  
<ddillman@igc.apc.org>  
Collector of Heavy Metal:  
Harleys, Willys and Radios Over 100lbs.

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: tomrice@netcom.com (Tom R. Rice)  
Subject: AR-88 followup (new home)  
Message-ID: <199605190057.RAA10728@netcom6.netcom.com>

Thanks to all the kind folks who responded to my inquiry re AR-88 prices. I went down and cheerfully gave the guy his \$300 and got in return a really clean radio, complete with a grand old loudspeaker of the type frequently seen in Republic serials of the Thirties, usually sitting on top of a two-way SX-24 or Breting 9.

An article on the AR-88 by W6HDU in ER some years back states that many of these guys were shipped without meters, due to a scarcity at the time, but the wires were in the harness for later meter installation in the field.

This is indeed the case with mine, so I have to ask if anyone out there has a line on a genuwyne AR-88 S-meter, described in the article as of "an amber color and marked

"DB above 1Mv" ". It 'twould be helpful as  
I sit there listening for those faint signals  
from that last Jedburgh team on the Continent.

(The OL suggested I put a small CRT in there and  
watch TV while awaiting the signals.)

Incidentally, this radio came to the US from WWII  
England via Buenos Aires, where the owner used it  
for SWL purposes. Any additional history and info  
in these grand old radios would be gratefully received.

tnx & 73 de WB6BYH

--

"Start off every day with a smile and get it over with." --W.C.Fields  
Tom R. Rice  
tomrice@netcom.com  
CIS: 71160,1122

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: "Benjamin D. Hall" <bdhall@ghgcorp.com>  
Subject: BA VHF Transceiver  
Message-ID: <319F3791.510F@ghgcorp.com>

Sorry to waste the bandwidth, but would the person with the VRC-19 (I  
think that was it) VHF military transceivers please e-mail me? I have  
lost your address and was wondering if you received my surface mail  
address...

Thanks and 73,  
Ben

--

=====  
+ Benjamin D. Hall, Houston Texas +  
+ BDHall@GHGCorp.com BHall@GP802.JSC.NASA.gov +  
=====

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: ab4el@nando.net (ab4el)  
Subject: BOATANCHORS HTTP's  
Message-ID: <9605191631.AA13729@nando.net.nando.net>

Folks!

I'm beefing up my ham radio web pages at SunSITE:  
<http://SunSITE.unc.edu/modena/hamradio.html>

I would be interested to receive URLs of strongly boatanchor  
and vacuum tube oriented web sites/pages that you know of.  
Ditto for GOPHER and FTP archives.

One liners are OK..send to: AB4EL@nando.net

--

72&73/Steve/AB4EL

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: n5off@w5ddl.aara.org  
Subject: Don't Forget Armed Forces QSO's  
Message-ID: <374160@w5ddl.aara.org>

Tune around outside the ham bands this weekend and you'll hear military  
stations transmitting, and listening for hams in-band. This is part of  
Armed Forces day effort.

I worked the Coast Guard on this pair yesterday

Station NMN  
14467 R  
14223 T  
Harris 2368 receiver  
Collins ? transmitter (he wasn't sure)

73 de tom

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: Bill Sorsby <bill.sorsby@dlep1.itg.ti.com>  
Subject: Drake R4 Filter  
Message-ID: <199605190818.DAA04004@dlep1.itg.ti.com>

On the subject of IF filtering, which Drake models used a crystal lattice  
filter? Moore's book indicates that the R4, R4B, and R4C did. Is this an  
error in the R4 data?

Regards,  
Bill Sorsby, N5BU bill.sorsby@dlep1.itg.ti.com

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: azoth@netcom.com (Az0th)  
Subject: Re: Drake R4 Filter  
Message-ID: <199605191425.KAA06003@netcom6.netcom.com>

Hi Bill,

> On the subject of IF filtering, which Drake models used a crystal lattice  
> filter? Moore's book indicates that the R4, R4B, and R4C did. Is this an  
> error in the R4 data?

All the 4's use an 8 kc wide xtal lattice filter to set the bandpass characteristic of the first IF. Only the C uses switchable xtal units at the second IF as the main selectivity elements; pre-C 4's use LC networks at the second IF. One set of Sherwood mods replaces this 8 kc filter with a single 600 Hz filter for CW, and/or a pair of 2.7 or narrower filters for SSB, relay switched. The effect of this upgrade on ultimate rejection and blocking dynamic range is dramatic.

73 de KF4FJH - RF Buchanan

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: Andy Wallace <wallace@mc.com>  
Subject: Re: Drake R4 Filter  
Message-ID: <9605191929.AA07380@daffy>

As far as I know, the R-4C was the one with the crystal filters available. The R-4B and before used the 50 kHz L/C ones (which in my opinion, work well). I don't have an R-4C but am I right in assuming that if you have an R-4C with no filters, your rig will still work (at like 2.4 kc bandwidth), unlike a 75A-4 with no filters? :-)

73,  
--Andy  
wallace@mc.com

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: "Benjamin D. Hall" <bdhall@ghgcorp.com>  
Subject: Dumb question department...  
Message-ID: <319FA961.19F9@ghgcorp.com>

Hi folks, here is one for the dumb question department. I know this has been explained before, but I don't remember...

What purpose does the dial light in a Halli S-38B serve besides illuminating the dial?

Was listening to my S-38B this afternoon when the dial light blew out. Replaced the bulb, a #47 (6-8 volts .15amps according to Photofact) with a #51 I had lying around (7.5volts, 0.22amps) and no dice. Filaments on the tubes don't light or anything. Methinks I blew a tube, cause the filaments should light even if the bulb had to be specifically a #47? Right?

Is the type of the bulb critical?

Thanks in advance,  
Ben "newbie" Hall  
--

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=====
+ Benjamin D. Hall, Houston Texas +
+ BDHall@GHGCorp.com BHall@GP802.JSC.NASA.gov +
=====
```

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: David Metz <metzd@cfw.com>  
Subject: FS B&w 6100  
Message-ID: <9605200034.AA30547@milo.cfw.com>

Boy that was a fast sale, it would appear that the subject BA is heading to North Carolina.

73's dave metzd@cfw.com

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: David Metz <metzd@cfw.com>  
Subject: FS: B&W 6100  
Message-ID: <9605192121.AA28108@milo.cfw.com>

I was in the local flea market this afternoon and there is a B&w 6100 for sale with microphone, asking \$125 and probably negotiable. I plugged it in and the tubes light up and a momentary key of the mike, closes a relay. There is a lot of corrosion on the chassis back near the transformer and the trimmer caps but it supposedly works fine, though I would take that with

a grain of salt. Cosmetically acceptable(corrosion only on the inside) except the 6100 decal looks like it was alum foil and it is coming loose but is intact. I would also suspect the top cover has been repainted but I'm not sure either way. As I I didn't have a convenient dummy load and am still a no talkie type BA affectionado, I can't tell you anything else except if interested:

Call: Ed Kahle 540 337 9220 between 7and 9 PM EDT only

for PU, this is in Western Va. I-81 Staunton, Va., and if you want to pay Ed for it, I can pick it up and hold for indefinite time later if you were cruzing I81, I will be glad to do so. If you can't get him on the phone, and are seriously interested, drop me a note and I can usually get him in a day or so. I don't get any commission, I just like to see this stuff get get to a needy parent before some idiot tears it apart for something stupid. I bought a BC 348Q from him that has 5 additional holes in the front panel and it make a body sick to see such a butcher job. No switches, just holes from "former" switches!!!

73's dave

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: Tom.Daley@530.gigo.com (Tom Daley)  
Subject: fs: r4/t-4x/ac-3/ms-4  
Message-ID: <bbd\_9605181113@gigo.com>

for sale "super very clean" original drake twins and accessories.

1. r4 receiver, works good and looks great, clean bright copper chassis, near perfect front panel with dial and meter light thats still "blue". case is very clean. with original box and original manual.
2. t-4x transmitter, works good and looks great in same shape as above. near perfect front panel and case, blue dial and meter lights. clean and bright chassis. with original box and the original manual.
3. ac-3 power supply, works good and is clean and complete.
4. ms-4 speaker cabinet in very clean condition.
5. turner 350 microphone in good shape and works great.
6. new spare finals (6jb6a)

above is collector quality !! \$325 plus shipping from sacramento  
thanks 73 tom

ps. for the serial number collectors r4 #1971 t-4x #11458

--

: Fidonet: Tom Daley 1:203/530 .. speaking for only myself.  
: Internet: Tom.Daley@530.gigo.com

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: JOHN\_SEHRING.parti@ecunet.org  
Subject: HALLI DUAL-CONVERSION RADIOS  
Message-ID: <9605181845.aa23958@pcusa01.ecunet.org>

> John,  
> In my 1951 ARRL Handbook, Hallicrafters advertised the Model  
> SX-73 as "coming soon". The ad claimed: "Dual conversion above 7 Mc;  
> the second beat oscillator is crystal controlled." Hope this helps.  
>  
> 73, Bill wb0cld

Tnx Bill. Yes, I believe this was Halli's version of the Super Pro. It used a 1st IF of around 3 MHz in a dual-conversion scheme but only above 7 MHz for obvious reasons.

It was the second \*conversion\* (not beat [BF0]) oscillator that was xtal controlled for better stability.

BTW, this is something that the National NC-183D does not have--I was quite surprised by that. Is this the only dual-conversion radio like this?

-John Sehring (written 05/18/96 10:44 am MT at Baker, Montana) WB2EQG

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: RhyneK@aol.com  
Subject: Re: HALLICRAFTERS DOUBLE-CONVERSION RADIOS  
Message-ID: <960518183151\_493815399@emout19.mail.aol.com>

The SX-130 was single conversion. The SX-122 continued the same IF relationship and the SX-111 did also I believe. The SX-88 was double conversion but I am not sure it used the same IFs.

de Rhyne, KA1CX

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: Bill Sorsby <bill.sorsby@dlepl.itg.ti.com>  
Subject: Re: HALLICRAFTERS DOUBLE-CONVERSION RADIOS  
Message-ID: <199605190249.VAA13187@dlepl.itg.ti.com>

Hi John,

The following is according to Moore's:

- SX-10 used 1600 kHz (1936)
- SX-12 used 1600 kHz (1936)
- S-21, S-22 & S-22R used 1600 kHz (38-46)
- S-53 used 2075 kHz (455 in S-53A) (48-59)
- SX-71 used 2075 and 455 (49-55)
- SX-73 used 6000 kHz and 455 kHz (52-53)
- SX-88 used 2075 kHz and 50 kHz (1954)
- SX-111 used 1650.75 kHz and 50.75 kHz (60-63)
- SX-112 used 1650 and 50 (1961)
- SX-115 used triple conversion 6005-6505, 1005, 50.75 (61-64)
- SX-116 used 1650 kHz crystal lattice filter (1961)
- SX-117 triple conversion 6000-6500, 1650, 50.75 (62-66)
- SX-122 used 1650 and 50 (64-66)
- S-129 used only 1650 (1965)
- SX-130 used 1650 (65-68)
- SX-140 used 1650 (60-63)
- SX-146 used 9 MHz crystal lattice (66-68)

All the rest used single conversion 455 or 465 kHz, except some of the VHF & FM receivers. (Unless, of course, I missed one as I didn't double check my work.)

Obviously, Hallicrafters liked IF's in the 1600 kHz region. It's interesting that Hallicrafters chose to use single conversion 1600 kHz IF's in a number of their cheaper receivers. Can't tell you much about the specific receivers as all I've got are the SX-101A and an SX-99.

It's also interesting that only two Halli receivers show up with crystal lattice filters and one of these, the SX-116, was allegedly only a military model. I wonder if Moore missed something here? Or maybe that's one reason many of us remember Hallicrafter's receivers as strictly mediocre.

Regards,

Bill Sorsby, N5BU

bill.sorsby@dlep1.itg.ti.com

From boatanchors@theporch.com Sun May 19 11:47:22 1996

From: Bob Roehrig <broehrig@admin.aurora.edu>

Subject: Re: HALLICRAFTERS DOUBLE-CONVERSION RADIOS

Message-ID: <Pine.ULT.3.91.960519100310.21807A-100000@admin.aurora.edu>

On Sat, 18 May 1996, Bill Sorsby wrote:

> Obviously, Hallicrafters liked IF's in the 1600 kHz region. It's  
> interesting that Hallicrafters chose to use single conversion  
> 1600 kHz IF's in a number of their cheaper receivers.

I would say that 1600 is probably a good compromise between selectivity and image rejection. I've always wondered why the 455/465 IF became so popular in communications receivers because of the poor image rejection. I can see it in BC band radios, but not in HF stuff. It appears that it became popular to have the IF below the lowest RF frequency but it doesn't have to be that way (the BC-348, for example).

E-mail broehrig@admin.aurora.edu 73 de Bob, K9EUI  
CIS: Data / Telecom Aurora University, Aurora, IL

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: Henry van Cleef <vancleef@bga.com>  
Subject: Re: HALLICRAFTERS DOUBLE-CONVERSION RADIOS  
Message-ID: <199605192228.RAA24330@zoom.bga.com>

The choices of 455 and 1600 KC for IF's are to avoid the broadcast band. Actually, the lower frequency is not "455," it is "450-480," and modern rice rocket stuff uses 450 for some technical reason having to do with PLL oscillators that I've forgotten.

The WWII BC receivers that used 915 Kc did not receive the broadcast band.

Keep in mind that the IF frequency in a set has a very loud signal floating all over the set. If the RF tank circuit tunes to the IF frequency, you have a severe feedback problem, as well as a complete inability to receive antenna signals at that frequency.

The 450-480 group were chosen in 1934. They are far enough below the RF tuning of most sets not to cause a problem, although some sets had wavetraps to short out any IF frequency getting through the front end. The coils had to be fairly low Q and/or overcoupled to get even 5KC of sideband bandpass for audio, but this frequency is reasonably good at rejecting broadcast band co-channel interference (9 Kc in Europe, 10 KC in the US). 1600 Kc, on the other hand, gives fine audio bandpass with hi-Q coils (100 or better) but is somewhat weak on co-channel rejection in the broadcast range.

Remember that most manufacturers bought their coils from third party manufacturers, and the predominant market was for AM broadcast. Millen, National, and Meissner all made 1600 Kc. versions of their IF's as stock items and sold them on their regular quantity discount

schedules. While the 455 transformers could be tuned to other frequencies, the manufacturers tweaked parts to go in stock to 455, and charged extra to retweak them. A radio manufacturer would have chosen the stock item to avoid cost or a need to retweak IF's wholesale in final assembly and test.

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\*\*\*\*\*  
Hank van Cleef vancleef@bga.com vancleef@tmn.com  
\*\*\*\*\*

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: Andy Wallace <wallace@mc.com>  
Subject: Heath/Drake/Johnson/Mil small stuff for sale  
Message-ID: <9605191926.AA07372@daffy>

Hi, folks!

I have a few small items for sale.

-- JOHNSON VIKING PHONE PATCH. Small unit, #250-46. Good condition; front panel nice, small scratches on sides. With 2-conductor connector for mike and another on a 6' cord for attaching to tx. (Ranger?) Offers?

-- DRAKE HIGH PATCH hybrid phone patch, model 584-A. Good condition, with knobs, black color. Untested. \$10 + shipping.

-- AIRCRAFT RADIO CORPORATION VHF Transmitter T-13A(28V). Uses 4 5763 tubes and has a "brass knuckles" arrangement around three of them. Says "Use ARC #14958 Crystal" inside; socket has same spacing as FT-243 but pins are larger. Five sockets. Much smaller than the ARC-5 tx. Untested. Also have...

--AIRCRAFT RADIO CORPORATION Transmitter, Radio, T-366A/ARC. Has December 1969 refurbishment tag...at which time they apparently gave it a new coat of paint (yes, they masked off the legends!). Untested, slight dent in top of case (one clip does not seat) but in good shape overall, similar to the T-13A above except no "brass knuckles." I can't lay my hands on the info now but the ARC series index at theporch.com may point to the frequency ranges of these two. I know one will do 2m as-is. Untested... How about \$15 for the pair of these, plus shipping?

-- SETCHELL CARLSON BC-1206C (longwave) Beacon Receiver. Covers 200-400 kc, 28VDC (no dynamotor required), 5 tubes. Includes DC cable and that weird antenna lead-in. Also includes original manual! Untested, nice shape overall with some paint missing from the back edge. Black wrinkle. \$35 + shipping.

HEATHKIT DX-60 transmitter. This is the earlier one similar in style to the Apache, with the recessed panel meter. Someone did a fairly neat job of installing a ceramic crystal socket on the front panel. It has unoriginal knobs on it, now, but I may be able to round up a set. I never made any AM contacts with it, but I believe it works in AM and CW modes okay, with reasonable output. Also have a spare rig, possibly the -B model with the larger panel meter, bought in untested condition (seller said mode switch may be flaky) and it has a slight cabinet dent. Make an offer for one or both, plus shipping.

I'd probably prefer trades on these things...what have you got? Looking for a Drake 2-AS/BS or CS speaker (without Q-multiplier), National speaker, manuals, what-have-you?

To be fair, I am going to wait a week on these things in case more than one of you wants an item, then draw from a hat. I know it can take a while for email to propagate.

I also have a Swan 260 Cygnet transceiver which I am considering trading for a Drake TR-4 and P.S. But the Swan is nice and compact for trips ... not that I take any trips! :-D The Swan is in beautiful physical shape.

73,  
--Andy  
wallace@mc.com

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: Tom Lemar <lema@ols.net>  
Subject: Help - Nordmende Tannhauser C  
Message-ID: <319F328C.4192@ols.net>

I have a Nordmende Tannhauser C - a beautiful German radio, but unfortunately it has a problem. I have looked every where I know for

some information on the thing but come up with nothing. I did locate some information on the Tannhauser and Tannhauser US, but they are altogether different in tube lineup and etc. I believe this radio was made in the late 60's or early 70's.

Is there anyone out there that might be familure with this radio or know where a fellow could possibly find some information on it.

Thanks

Tom Lemar  
lema@ols.net

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: dlightfoot@prodigy.com (MR CHARLES L LIGHTFOOT)  
Subject: HT-37 Power Transformer  
Message-ID: <199605182105.RAA16612@mime3.prodigy.com>

-- [ From: Charles L Lightfoot \* EMC.Ver #2.10P ] --

Greetings,

An e-mail impaired BAer here in Mass (WR1Y Earl Russell) has a HT-37 with a cooked power transformer. Any of you out there have one, or have used a substitute that is easier to find? He might end up outboarding the power, but would prefer to do it close to original. If you have any advice, I'll pass it on.

73, Deke AA6DF Pepperell, Mass dlightfoot@prodigy.com

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: Lrware@aol.com  
Subject: Looking for another BA test equipment manual  
Message-ID: <960519202932\_116921573@emout16.mail.aol.com>

Hi firebottle fans,  
Once again one of your resident "test equipment junkies" is looking for a manual or copy of same...  
This time it's a "General Microwave Model 451 Pwer Meter" S/N 962.  
This is a bolometer based HF/VHF firebottle power meter that reads in milliwatts, etc.  
Will pay all costs for copy or whatever? for the real thing.  
Thanks,  
-Larry Ware  
lrware@aol.com

Orlando, FL

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: Bill Sorsby <bill.sorsby@dlep1.itg.ti.com>  
Subject: Mechanical & Crystal Lattice Filters  
Message-ID: <199605191639.LAA04306@dlep1.itg.ti.com>

After discovering that only two Hallicrafters receivers used crystal lattice filters, I decided to see how other manufacturer's radios compared. Here's the info from Moore's:

Allied A-2516 Crystal lattice (1970)

Collins:

51J4 Mechanical (52-62)

51S1 Mechanical (59-72)

75A2A, 75A3, 75A4 (53-58)

75S Mechanical (58-76)

R390A, R388A, R391A Mechanical (1954-?)

Drake R4 series, Crystal lattice (64-80)

Hallicrafters:

SX-116 Crystal lattice (1961)

SX-146 Crystal lattice (66-68)

Heath:

HR-10 Crystal lattice (63-68)

HR-20 Crystal lattice (62-64)

MR-1 Crystal lattice (59-60)

SB-300 series Crystal lattice (63-?)

Mackay Marine 3010-B Mechanical filter (late '60's)

Lafayette:

HA-350 Mechanical filter (64-67)

HA-700 Mechanical filter (1966)

National, Optional Mechanical filter (59-64)

Racal RA-17, RA-117 Crystal lattice (64-66)

RCA FRR-22, FRR-23 Mechanical filter (49-60)

Squires-Sanders SS-1R Crystal lattice (63-66)

Swan 600R Crystal lattice (71-73)

Assuming that the info in Moore's book is correct, it amazes me that of the major vintage receiver manufacturers only Collins, and Heath endorsed Mechanical or Crystal lattice filters. Hallicrafters and Drake offered only one commercial receiver each with a crystal lattice filter and National offered as optional equipment a mechanical filter on only one model. Hammarlund, Gonset, RME and TMC never offered either.

Mechanical filters apparently were available by 1950. Prior to 1960, crystal lattice filtering was a well known technique which had become the

preferred approach to SSB generation, supplanting the phasing approach. Then in the early '60's SSB transceivers became common and all of them used either crystal lattice or mechanical filters. Could this be one reason that transceivers were so popular?

Retrospectively, it appears that the vintage receiver manufacturers either neglected to keep pace with changing technology or perhaps were in such bad shape financially as to be unable to keep pace.

In an attempt to divert criticism from those claiming the advantages of L/C filters, Q-multipliers, etc., I'll just point to the Lafayette HA-350, a cheap and simple receiver which I've discovered is also a very good receiver. Also consider the popularity of the HR-10, another cheap receiver which apparently many novices found effective.

Sorry for the bandwidth. I hope someone besides me finds the info interesting.

Regards,  
Bill Sorsby, N5BU                      bill.sorsby@dlep1.itg.ti.com

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: KA9EGW@aol.com  
Subject: Re: Mechanical & Crystal Lattice Filters  
Message-ID: <960519124814\_297507491@emout09.mail.aol.com>

according to the A2516 manual sitting here, the A2516 uses a mechanical filter...but judging by the size of it (looks like two stone-state rx IF cans--about 1/2" x 1") I wonder...

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: n6nae@ix.netcom.com (Richard Humphrey )  
Subject: Need a CV-591A manual:  
Message-ID: <199605191825.LAA12791@dfw-ix10.ix.netcom.com>

I need a manual for a CV-591A/URR SSB converter, made by TMC. Found it this morning at the North Hills RC swap here in lovely Carmichael, CA. Anybody?

It was a smallish swap. Weather forecast was for pouring rain, but the sky was blue when the sun came up, so go figure.

Wasn't a lot of great BA gear, but some stuff:

R-388, no top cover, not very clean. Asking \$250. Sat there.

National NC-270 w/speaker. \$100. Fair shape, but that awful blue color! That must be what killed National.  
SP-600 JX-17. Asking \$250. Non-original covers, missing WWV crystals, fairly dirty.  
Command set transmitter racks, one each in 1, 2, and 3 hole models, with shock mounts. Sold before they arrived.  
A homebrew consisting of two Command transmitters, one for 80, one for 40, mounted in a rack panel, with a companion power supply/modulator, all in a table top rack cabinet. Beautiful workmanship, somebody went all out building this one.  
HBR-16 homebrew receiver, asking \$30, had a firm offer of \$25. A little crusty, but would clean up real nice. Eddystone dial, right out of the Handbook. Shoulda bought it, if I weren't so cheap and had a place to put it.

Anyway, I bought a few parts. Picked up five 1614 tubes for \$4. All test good. Found a PJ-068 plug for the Collins, and a spare 5R4, for two bits. Went crazy and picked up a Command receiver, LF version.

Was on my way out when I spotted the CV-591. The guy was just arriving, and nobody had pounced yet. Said if nobody bought it, he was going to strip it for the power transformer to build a hifi amp. Now it's safely in my garage.

Richard  
N6NAE@ix.netcom.com

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: robert fowle <hammarlund@voyager.net>  
Subject: need manual TM 11-826  
Message-ID: <199605191932.PAA14429@vixa.voyager.net>

want to find a TM 11-826 / TO 31R2-3SCR399-21, original manual for the BC-610 series. if you have this and want to sell or trade it, please e-mail me.

=====]-[->

Robert Fowle KC8DBC  
The HAMMARLUND Historian  
Ph. voice or fax 517-789-6721  
1215 Winifred  
Jackson, Mich. 49202-1946  
E-mail at: hammarlund@vixa.voyager.net  
HAMMARLUND LITERATURE WANTED  
WANTED: MANUALS FOR ANY MAKE RADIO EQUIPMENT

=====]-[->

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: "Allan Fritsche" <fritsche@msn.com>  
Subject: Nema or Rema Ant coupling  
Message-ID: <UPMAIL03.199605182253080551@msn.com>

Ben, I know what your talking about as far as a dummy antenna for alignment. To be honest I dont think you need to worry about that to much with the S-38B, Altho I have a dummy load similar to the one you discribed.I never use it. If I recall the S-38B and all models of that breed had no RF stage and as such you have to feed the the RF signal directly to the antennae connection for alignment. I would just take the output from the sig gen and wrap a wire between the two.(ie no direct contant). keep the signal gen output as low as you can and remember to align on fundamentals not images. Its very easy to do if you get in a hurry.at low signal levels the image will disappear and you can get it right. Just take your time. BTW it helps to know if the local oscillator is mixing high or low on the band you align. As usual if you haven't got Hanks hints and tips for alignment, you should now.

Sincerely Al  
fritsche@msn.com

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: Henry van Cleef <vancleef@bga.com>  
Subject: Re: Nema or Rema Ant coupling  
Message-ID: <199605190013.TAA22980@zoom.bga.com>

As Allan Fritsche said

>

>

> Altho I have a dummy load similar to the one you discribed.I never use it. If  
> I recall the S-38B and all models of that breed had no RF stage and as such  
> you have to feed the the RF signal directly to the antennae connection for  
> alignment. I would just take the output from the sig gen and wrap a wire  
> between the two.(ie no direct contant). keep the signal gen output as low as  
> you can and remember to align on fundamentals not images. Its very easy to do  
> if you get in a hurry.at low signal levels the image will disappear and you  
> can get it right. Just take your time. BTW it helps to know if the local  
> oscillator is mixing high or low on the band you align. As usual if you  
> haven't  
> got Hanks hints and tips for alignment, you should now.

>

You rang? I see my name being taken in vain again.

So far as "dummy antenna" goes for coupling a signal generator into a receiver, the manufacturers and Sams both generally give values without

any specifications for the generator being used. The whole issue is not to overdrive the circuits being aligned. I never pay attention to those specs, just hang a 100 pf on the generator output for IF's and turn the output down to the minimum level that is usable. I put a VTVM on the detector output, and tweak for maximum volts (that's "maximum negative") A 6SQ7 setup on an AA5 will put out about -300 mv. with no signal, and I generally peak around -1500 mv. at the detector out. You can get lots of spurious responses if you have too much generator input, because you are going to distort the signal. Also, watch out for spurious responses if the generator output is loaded with harmonics, as one gets from a crystal calibrator output. The feed into the RF section, once the IF is aligned----I usually just clip the generator output "hot" lead to the antenna insulation. Once again, don't over-inject. Generally, you will get a lot of interaction between the local oscillator and RF tuning in the mixer stage. Don't try to use this to "pull" a set into track. You want the RF tuned exactly on the signal and the oscillator exactly on the signal+IF (for hi oscillator). In a really pesty case, you may need to use a grid dip on the coils or disable the RF tank and feed in enough raw signal to beat the oscillator against it and set it, then re-enable the RF tank and peak it. Generally, it will be obvious which way to turn the tweaks after you've checked lo-hi on the band a few times---just cut the delta you turn the tweak in half, and don't peak the signal, then go back to the other end, and do a similar half-distance tweak, and you'll get it centered on the third or fourth iteration.

Most local oscillators in HF radios are high oscillators. Cues are either a smaller section in the LO section of the main tuning cap and/or presence of padder caps in the LC circuit. The S-27/S-36 series stand out, as they use hi oscillator on band one, lo oscillator on band 2-3, and there is an unmistakable padding cap in the RF coil to the mixer on band 2, which says "lo oscillator" to you. Look to see if the cap sections are the same size and if, so, where the padding is on THIS band.

Images are a pest, and anyone who has lined up more than four or five RF/LO stages has committed the blunder of setting the oscillator on the wrong side, usually at the high end of the band. ALWAYS double-check where the image is. You may need to boost the generator output on lower frequencies, but it's there. The rule to remember is: hi oscillator is correct if the higher image frequency is the one you are tuning on. That translates to lower generator frequency is the correct one. Just remember, hi = hi in the receiver and is reversed on the generator.

--

\*\*\*\*\*

Hank van Cleef vancleef@bga.com vancleef@tmn.com

\*\*\*\*\*

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: "Ray L. Mote" <rmote@rain.org>  
Subject: Oregon estate: please don't call  
Message-ID: <Pine.SUN.3.93.960519110126.19423B-100000@coyote.rain.org>

Just talked to Bob White in Oregon (helping the relatives in that estate).  
He's not feeling too good these days, and the phone calls are preventing  
him from getting any rest. Please don't call until/unless I'm able to  
pass the word later that he's better. (Low probability of that  
happening.) I wish I could convey better news, but that's life.

73.....Ray Mote, W6RIC <rmote@rain.org>

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: Andy Howard WA4KCY <102452.362@CompuServe.COM>  
Subject: RE: Phillips head screws  
Message-ID: <960519022322\_102452.362\_DHT90-1@CompuServe.COM>

Hey Gang,

>I looked in my 1941 Machinery's Handbook and found no reference to  
>phillips head screws. But I know they were around sometime in the  
>50's, because as a distructive brat I can clearly remember only finding  
>phillips screw drivers (unwanted) because I had of course lost or  
>destroyed all of my falther's blade screw drivers (left outside, etc.)  
>

Don't forget thatl ART-13's had phillips head screws all over the place. These  
certainly date from the early 40's. Don't know if anything came out earlier or  
not with phillips head screws. I am not sure if I have anything older than my  
ART-13's or not but I suspect that phillips head screws are older than the 40's.

Regards,

\*\*\*\*\*

Andy Howard, WA4KCY  
102452.362@Compuserve.com  
WA4KCY@Juno.com

WA4KCY@usa.net  
Southeastern Director  
AM International  
Certificate Number 9

<><  
Collector, Restorer, Builder

\*\*\*\*\*  
Internet Home Page:  
<http://ourworld.compuserve.com/homepages/sweetbay>  
\*\*\*\*\*  
"Is this material Universe a mere aggregate of fortuitous  
combinations of matter, or is it the result and work of  
intelligence, acting upon a plan?"

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: Bill Strangfeld <bstrang@iac.net>  
Subject: Reasons to go/not go to Dayton  
Message-ID: <Pine.SUN.3.91.960519134833.25608C-100000@little-miami.iac.net>

Ten reasons to go to Dayton:

1. BC-939 antenna tuning unit from BC-610, nice condition, \$65. It is missing the tag. Does anyone have an extra tag or a manual copy?
2. NC-100, complete and working, \$40. The seller said it was an ex-FAA set. No crystal filter, but it has an original adaptor for a crystal controlled single frequency with a crystal for 6250 in it. Was that an airways frequency?
3. BC-342, complete except for the tag and a few small parts but extraordinarily dirty on the outside, \$5. (Heavy rascal.)
4. LS-206A/U speaker assembly, consisting of two speakers in a rack mount case, with toggle switches for Channel A and Channel B, \$2. Color matches an R-390 or R-390A. Anybody know for sure what this was used with? It was made by the Crosley Division of Avco Mfg Co, contract number 28459-PH-55. Was it part of a diversity setup?
5. An original BC-348C manual, \$1. (Ken Corwin, I'll make you a copy if you still want -C details.)
6. An NC-200, no panel or case but otherwise complete, \$5.
7. Low frequency tuning unit for ART-13, \$1.

8. The feeding frenzy when a surplus dealer pulled out and left a bunch of freebies lying behind. I grabbed an LM-13 frequency meter, a HP 410B, an HP 411A RF millivoltmeter, and a big IFF test set for parts. There were even some BC-306 antenna tuning units, but not for long.

9. Good company. Saw Rich Duell, Charlie Stinger (a quiet BA list member and the curator of the Gray Museum), Barry Ornitz, Michael Crestohl, and others. Missed Rich Post for the second hamfest in a row. Sorry Rich.

10. My annual sunburn!

Two reasons *\*not\** to go to Dayton:

1. The NC-400 with a sign on it proclaiming it could be had for the "Best Offer Over \$1,000." Price seemed ambitious, given that the receiver was in an HP-606 or similar case that was too small for it. The chassis stuck out about 4" in the back of the case!

2. A TU-5B tuning unit for a BC-375, with a price sign that said \$100! (At the booth of S\*\*\*\*\*s S\*\*\*\*s of N\*\*\*\*\*a.)

There was lots of Collins and Drake gear this year. Quite a few KWS-1s and 75-A4s. At least three Drake TR-6 sets showed up, at \$350 to \$450 asking price. Saw many more Drake 2B, 2C, and 2NT than usual. There were at least two Drake 1-As. A xtal calibrator for an HRO-60 sold for \$75. Saw a SOJ-3 for an HRO-60 in perfect shape, with an asking price of \$95. Don't know if it sold.

Great weather too, for once. Now if they could only do something about the traffic....

73  
Bill Strangfeld  
bstrang@iac.net

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: Tom.Daley@530.gigo.com (Tom Daley)  
Subject: relay: fs: receivers  
Message-ID: <f43\_9605191432@gigo.com>

do not conatct me, contact the fellow below 73

Message #199 - HAM Radio For Sale

Date: 05-18-96 04:12:58  
From: Brent Reynolds  
To: All  
Subject: Good Old Receivers for Sale

I have two receivers aimed at the HAM market for sale:  
One Hammarlund HQ-one-forty-five in excellent working condition, has full coverage from 535 KHz to 30,000 KHz on four bands; has the optional chrystal oscillators, band-width filters, and electric clock; made some time late '50's or early '60's; all new caps and tubes. Leave message here or call the number at end of message.

Also: one Halicrafters S-85 receiver in excellent condition with all new caps and tubes.

Will take \$80 or best serious offer for the Hammarlund and \$60 or best offer for the Halicrafters.

Will consider trade: looking for 1960's through mid '80's large analog portable such as Panasonic RF-3100, Nordmende, Telefunken, or Grundig Satellite 1000 to 2000 series models or other full-coverage large portable of similar type.

Leave message here or call Brent Reynolds in Atlanta at 404-814-0768 any time. Leave message if I'm not in or the modem is hogging the line.

--

: Fidonet: Tom Daley 1:203/530 .. speaking for only myself.  
: Internet: Tom.Daley@530.gigo.com

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: "Benjamin D. Hall" <bdhall@ghgcorp.com>  
Subject: S-38B  
Message-ID: <319E36AF.7636@ghgcorp.com>

Hello y'all...

Just finished aligning the S-38 and wow what a difference! AM BC static is gone, and it is doing pretty well on 15 MHz band shortwave. Now to make a bottom for it and haul it into work...

Thanks for all the help,  
Ben

--

=====  
+ Benjamin D. Hall, Houston Texas +  
+ BDHall@GHGCorp.com BHall@GP802.JSC.NASA.gov +  
=====

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: "Ray L. Mote" <rmote@rain.org>  
Subject: San Luis Obispo military radio collectors' meet  
Message-ID: <Pine.SUN.3.93.960519113355.19423D-100000@coyote.rain.org>

Wheeee!! Thirty guys showed up, including approximately 40% BAfolk attending. One of the high points was watching Bjorn Forsberg (SM5UR/W6) do a "show-n-tell" on about 9 or 10 Swedish & Russian manpack sets while wearing a Russian submarine commander's full-dress uniform! Bet that photo is a candidate for the ER cover. W6DJX covered the command sets, Henry Engstrom did the BC-474 (SCR-288), and our own Dave Stinson did the BC-375 while his two complete SCR-274N stations purred happily at the back of the room. He had to borrow the BC-375 on-the-spot to do the talk, but had brought in two complete, working command sets so the newcomers could have some hands-on time. Dave had a really tough decision to make, but finally resolved it by loading all three kids in the van and leaving behind that new 28V/50A supply he'd just bought. <grin>

Both the command set and BC-375 briefings stressed the importance of a really solid DC supply with plenty of reserve capability, as well as proper relay sequencing, to prevent a bad case of "yooping cough".

When quizzed about their "druthers", the group opted to go for a similar meeting next year (same time/same place). Seems they really liked the opportunity to hit a combined northern/southern California antique radio clubs-type swap before going into the meeting. Our own Ed Zeranski <ezeran@powergrid.electriciti.com>/<ejz@marlin.nosc.mil> will be handling "getting the word out", and will doubtless provide us with his "take" on the proceedings. I'll be happy to see how others viewed this gathering. Personally, I had a ball! Didn't get to participate in quite as many after-hours bull sessions as I'd have liked, but did have quite a few very enjoyable discussions. Can't wait till next year!!

<Sigh>.... and all this just because Dave Stinson and I couldn't agree on which one of us should travel to see the other's shack! In deciding to meet "in the middle", and then to invite a few friends to come along for a good roundtable discussion, we managed to start something that turned into an avalanche!

73.....Ray Mote, W6RIC <rmote@rain.org>

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: JOHN\_SEHRING.parti@ecunet.org  
Subject: SB-34 AGC  
Message-ID: <9605181845.aa23948@pcusa01.ecunet.org>

> My RAL from 1936 has audio derived agc. It worked fairly well, even  
> back then, with '41 tubes as agc amplifiers on a TRF regenerative  
> receiver.  
>  
> Usually there is a threshold setting for agc action, and the audio needs  
> to be just at or slightly above that level. Too much and it will  
> distort. Too little and the agc amplifiers don't control enough. There  
> is a level threshold control on the RAL to adjust acg action, within  
> limits.

Wouldn't this pump the agc as a function of the modulation level of the AM  
sig? I'd think it would bring up the gain a lot during quiet spots  
and give a lot of noise.

-John Sehring (written 05/18/96 10:50 am MT at Baker, Montana) WB2EQG

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: "Benjamin D. Hall" <bdhall@ghgcorp.com>  
Subject: Stupid Question Department Continued...  
Message-ID: <319FAEB4.70CF@ghgcorp.com>

Well folks, pulled all the tubes out of the S-38B and the 35Z5 has given  
up the ghost. Now for the \$10,000,000 (inflation!) question: Did the  
35Z5 filament failure take out the dial light or did the dial light  
failure take out the 35Z5? Any ideas?

Thanks and 73,

Ben

P.S.: I'll keep my mouth shut now!

--

=====  
+ Benjamin D. Hall, Houston Texas +  
+ BDHall@GHGCorp.com BHall@GP802.JSC.NASA.gov +  
=====

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: Henry van Cleef <vancleef@bga.com>  
Subject: Re: The arrival of Phillips head screws  
Message-ID: <199605181743.MAA22700@zoom.bga.com>

As Benjamin D. Hall said

>

> Allan Fritsche wrote:

> >  
> > OK, Mechanical Engineers, speak up.  
> > Probably Hank will be the first to respond. I am beginning to think he knows  
> > a lot about everything.  
>  
> Hello Al and list...  
>  
> In my limited knowledge of old stuff, I think Phillips screws came about  
> in the 60's sometime? (The Halli SX-24 uses slotted, the NC-100A uses  
> slotted, Nems-Clarke uses Phillips, R-366 uses Phillips)  
>  
> Hey Hank, do you have any ideas?  
>  
No, Hank wasn't the first to respond, because Hank doesn't know when  
Phillips heads were first used.

Ben's comment that they were developed for use with automated assembly  
is probably about right---if a power screwdriver operated by an  
assembly line worker is "automated." I can definitely state "before  
1940" without a doubt, because they were used in thirties airplanes and  
automobiles, and I think that "before 1930" is equally correct, but am  
less sure. The place I would look for evidence would be old  
automobiles, and I would not be astounded to find them dating back to  
the WWI era, when the auto industry moved from team building to  
assembly line operation. I would also look closely at mid-priced cars,  
such as a Dodge Brothers car (Chrysler bought them in 1928), not at  
Fords or high-priced cars like Packard or Pierce. An early Cadillac  
would be likely to have used them (Cadillac was a mid-price car until  
the twenties).

There are things to keep in mind when doing "anthropological research"  
of industrial artifacts. One is that while Ford's moving assembly line  
of 1913-15 is very well known and talked about (an historian of  
technology can get sick and tired of Bell/Ford/Edison/Wright Brothers),  
it is not typical of manufacturing methodologies used in other  
manufacturing, and can't be assumed for something like a 1920's  
household appliance. All of the fasteners in the two 1920's hand-held  
vacuums I have are slotted round-head machine screws, but these were  
very likely assembled by one person using hand tools. Also, keep in  
mind that Ford was NOT innovative after WWI, and that a lot of what  
went into later model T's was "we always did it that way" stuff. The  
Dodge Brothers, who split with Ford (see the Allen Nevins 3-volume  
study of Ford for details), said that "You'd think some of those people  
buying Fords would rather have an automobile," and the early Dodges  
were a substantial departure from Ford practice. Packard, etc., were  
low volume, with production volumes on the order of 100 automobiles/day  
built on 48 working hours/week schedules. Also keep in mind that the  
automotive "assembly line" is "final assembly" of a quantity of

components, many of which can best be handled with the help of specialized fixtures for handling weight or bulkiness, such as engine installation in a chassis and body drop onto the chassis.

When you look at an old communications receiver, such as an RME-69 or a National HRO, you are looking at production runs of 1000 a year or less (that's on the order of 5 a working day), using small components easily handled by one person, and many of these were built up by one person, beginning with pre-punched chassis with tube sockets and terminal strips rivetted in place and a "kit" of parts including a pre-fabricated wiring harness. One person (typically a woman) would assemble the mechanical components to the chassis using hand tools, install the wiring harness, components, and any point-point wiring, and solder it all together at one workstation. This process was virtually identical to Heathkit construction, and used similar manufacturing aids (pictures, step-by-step instructions, and a prebuilt "model" of the device to copy). Even a complex device like a Tek 545A scope, which was built in serious quantities for the electronics industry (about 5000 units/year for several years) was fabricated in fairly simple steps where the wirer/assembler worked on the device (such as a sweep or vertical amplifier chassis) for an hour or longer, using kits of parts and hand tools. Stan Griffiths can fill you in on details better than I can, but you'll notice that a Tek scope is full of slotted binder-head screws.

One interesting aside, which does not relate to screw heads, is that there are tons of specifications for thread forms, and I think about the best source for information on the standards is an SAE Handbook. A great deal of work was done on this in the 1940-42 period as a result of Packard's work to take the Rolls Royce Merlin engine design and place it in series production in a US plant, and allow both British and US fasteners to be made on similar equipment.

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\*\*\*\*\*  
Hank van Cleef vancleef@bga.com vancleef@tmn.com  
\*\*\*\*\*

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: mirage!pamars@Simba.AGN.NET (P.A.Marshall)  
Subject: Re: The arrival of Phillips head screws  
Message-ID: <9605182241.AA29920@mirage>

Allan Fritsche writes:

>

> Jim Dillon wrote , in his neat fashion, when did the Phillips head screw

> appear.( Machine threads or Sheet Metal).

>

I looked in my 1941 Machinery's Handbook and found no reference to phillips head screws. But I know they were around sometime in the 50's, because as a destructive brat I can clearly remember only finding phillips screw drivers (unwanted) because I had of course lost or destroyed all of my father's blade screw drivers (left outside, etc.)

Al Marshall            "Real Radios Glow in the Dark"            almarshall@acm.org  
1+219.665.5072            Mirage Computers, Inc.            pamars@mirage.angola.in.us

"The lyf so short, the craft so long to lerne." - Chaucer

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: "Allan Fritsche" <fritsche@msn.com>  
Subject: Tom Daleys Post  
Message-ID: <UPMAIL03.1996051923592200000@msn.com>

Gang, I talked to the owner of the HQ-145 and the S-85 a few moments ago. Bought the HQ-145, but the S-85 is still forsale. Cheap (60.00). You will have to pay the shipping from Atlanta.(Not so Cheap).He's looking for trades for a 1950 or 60 model Panasonic portable, All Band, or any telefunken type general coverage receiver. Help him out If you can or direct him to the best place to barter.

Again his name and number is : Brent Reynolds and his number is 404-814-0768. Real nice guy.

Your Friend Al  
fritsche@msn.com

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: Jeffrey Herman <jherman@hawaii.edu>  
Subject: Tubes Wanted  
Message-ID: <Pine.SV4.3.91.960519144510.9097A-100000@uhunix3>

I'd like a complete set of spares for my Galaxy GT-550. I'd rather give the money to another ham than to a dealer, so here's the list of what the 550 uses. Looking for NOS (unused) firebottles only:  
6EJ7, 6EW6, 6GK6 (2), 6HG8, 6KE8, 6LB6 (2), 12AT7, 12BA6, 12BZ6, 0B2, 0C2.  
Please let me know your prices.

73 from Hawaii,  
Jeff KH2PZ

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: robert fowle <hammarlund@voyager.net>  
Subject: tubes wtb/ or trade  
Message-ID: <199605200049.UAA05540@vixa.voyager.net>

hi gang;

have for trade 4-65A's...need 100TH's, and 2A3's, 250TH  
basically tubes for BC-610E.....anybody interested? or have other things to  
use as trade material.

also need manual for BC-614E modulator unit.

i'd be interested in most anything used with the BC-610E.

=====]-[->

Robert Fowle KC8DBC  
The HAMMARLUND Historian  
Ph. voice or fax 517-789-6721  
1215 Winifred  
Jackson, Mich. 49202-1946

E-mail at: hammarlund@vixa.voyager.net

HAMMARLUND LITERATURE WANTED

WANTED: MANUALS FOR ANY MAKE RADIO EQUIPMENT

=====]-[->

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: dlightfoot@prodigy.com (MR CHARLES L LIGHTFOOT)  
Subject: Viking II  
Message-ID: <199605182105.RAA04574@mime3.prodigy.com>

-- [ From: Charles L Lightfoot \* EMC.Ver #2.10P ] --

Thanks to the help of many in the group, I have my Viking II and 122  
up and running with a decent signal. The 122 had been wired for FSK  
which threw me off for a bit! The real problem ended up being some  
leaky electrolytics in the bias supply which were dropping the bias by  
20

volts. CW was fine, but on AM, any adjustment to the modulator idling  
current threw off the clamp adjustment. I guess I should have known to  
make sure the bias supplies were good in the first place.

While cleaning the roller inductor, I removed the lubricant from the  
roller bar, and when tuned to resonance, the rig wants to sizzle and fry  
at the roller and the point where the roller contacts the inductor.  
Should I be using a special lubricant, or is it normal to have to  
remove

the roller assembly for abrasive removal of surface oxidation or

corrosion. They look clean, but obviously are not.  
Secondly, would a product like Deoxit (which I have never used) be  
useful for cleaning and lubrication a large assembly like this?

Thanks again! 73

Deke AA6DF dlightfoot@prodigy.com Pepperell, Mass

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: Andy Howard WA4KCY <102452.362@CompuServe.COM>  
Subject: Wanted: Johnson Viking Navigator  
Message-ID: <960519205236\_102452.362\_DHT67-1@CompuServe.COM>

Hi Gang,

I have a friend who does not have internet access. He is looking for a Johnson  
Viking Navigator. He asks that anyone who has a Navigator they would consider  
selling to call him collect.

Call Dick @ 704-692-6571

Thanks,

Andy, WA4KCY  
AMI #9

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: "David L. Thompson" <thompson@mindspring.com>  
Subject: Wells Gardner and other firms making BA's  
Message-ID: <199605190147.VAA26167@borg.mindspring.com>

That Wells Gardner is making video components and games is not as unusual as  
it sounds. My dad was in Army MARS for many years and we saw equipment from  
Lionel (BC-348 and a transmitter carried on the back), Kodak, Sperry  
Gyroscope and others. During WW2 many firms turned to making radio  
equipment vital to the war effort. This also occurred to a lesser extent  
during the Korean War. I don't think Lionel was making many toy trains in 1944!

What I feel is unfortunate is that MARS members no longer get the equipment  
given out in the 1950's and 1960's. We got a BC-610, a TBW-5 system with  
Generator (400 cycle), a Tektronix 511Ad scope, 100th tubes, a BC-348Q and  
N(Lionel), a BC-221, and several other items. The last nice items given  
out were the NC-400's. Others got SP-600's SX-73's, the air force gave out

a few AR-88's and CR-88's (Marconi version). Too bad this stopped in the late 60's ...now if we are lucky and have plenty of money we can get gear and parts at auction from the surplus bid folks. For example one company in California got 1,100 4D32's...I wonder how many of these get back into the ham/BA market?

Dave K4JRB

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: n5off@w5ddl.aara.org  
Subject: Wells Gardner Today  
Message-ID: <373961@w5ddl.aara.org>

I pulled up WG recently on the S&P CD ROM. They are stil in business in Chicago, making video components, mostly for video poker and slot machines.

Now, would I kid you?

73 de tom

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: n5off@w5ddl.aara.org  
Subject: Wells Gardner/MARS  
Message-ID: <374155@w5ddl.aara.org>

I believe the call to action of Lionel to make rigs, and Singer to make guns was driven by a different need then than WG making joker pokers today.

Anyway, on the MARS equipment issue, I agree its sad that the source has dried up.

I was "approved" by my state MARS director to get a KWM-2 "when one became available". Well, its been about six years, and don't you know those hen's teeth must be pretty scarce. Yet I ran into a MARS G.O.B. the other day who got a Collins HF-380! Hmmmmmmmm..... The fish rots from the head down.

73 de tom

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: Bob Duckworth <rmd@ka4ybr.netmha.com>  
Subject: Why and Swaps  
Message-ID: <199605191238.IAA00546@ka4ybr.netmha.com>

late night signals from exotic places with rosin smell and orange glow on the side. there's nothing like CW through a tube :-)

Have to Swap:

SB101, speaker power supply, heath desk mike, heath digital (nixies) freq display, station monitor and SB200.

Also. made in Japan for heath ball bearing straight key.

Heath HW-12. no power supply.

Boonton 202B signal generator. Clean for it's age.

S40B

KWM-2A (I'm still working on it though).

Wanted:

ICIR, Atlas, Cubic (Astro, etc), Signal one, and other USA made sand state and hybrid rigs (pre 1980).

Geloso

Mosley CM-1

Any hollow or sandstate homebrew gear (pre 1980).

Preferably with documentation if not based on a published project.

Parts for homebrew hollow state RX projects.

Vibroplex lightening bug to replace mine which was lost at sea :-)

73,

-bob

From boatanchors@theporch.com Sun May 19 20:32:27 1996

From: "Allan Fritsche" <fritsche@msn.com>

Subject: Wishing I was Hank

Message-ID: <UPMAIL03.199605200018070298@msn.com>

Ive stated recently that Hank Van Cleef knows alot about just about everything to do with electronics, Hollow or Solid State. I am proud to tell you that I suspect he's a (Texas boy but he won't tell anyone where he's located at.) I suspect the Piney Woods of East Texas.

I will go on record as many have in the past, Hes one of the great resources

to this list.

As always, you friend Al  
fritsche@msn.com

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: TUBEBUYER@aol.com  
Subject: Re: Wishing I was Hank  
Message-ID: <960519205336\_116934474@emout16.mail.aol.com>

As many will, no doubt, state, "ME TOO"

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: Michael Neidich <neidich@hooked.net>  
Subject: WTB TransOceancis 7000-2 Zenith  
Message-ID: <319F56C9.DE4@hooked.net>

Looking for a Taiwan made 7000-2 with two tunable VHF bands.  
Will trade US-made 7000-1 (xtal controlled weather band) or cash deal.  
Let me know the condition. (Santa Clara, CA)  
Mike K2ENN/6

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: Tom Lemar <lema@ols.net>  
Subject: WTB- FOR 75A-2  
Message-ID: <319F0D97.4C6E@ols.net>

Hello gang

I picked up a real nice 75A-2 this past week but it is without its cabinet. Was wondering if anyone might have a cabinet or a junker that they would sell. I also would like to find the crystal calibrator 8R-1 also. If anyone has these items that they would sell, please drop me a note.

Thanks

Tom  
lema@ols.net

From boatanchors@theporch.com Sun May 19 20:32:27 1996

From: TUBEBUYER@aol.com  
Subject: WTB:Western Electric, RCA, Altec-Lansing & JBL  
Message-ID: <960519210457\_116940987@emout08.mail.aol.com>

I collect, among other things, boatanchors made by Western Electric, RCA, Altec-Lansing and JBL. Please let me know if you have anything made by these companys including, but not limited to, amps, speakers, horns, drivers, tubes, transformers, chassis's, literature, parts, etc.

I have ham, millitary and test equipment boatanchors and cash to trade.

Thanks!!

Rick

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: John Kolb <jlkolb@cts.com>  
Subject: WTD: Info Wells Gardner  
Message-ID: <Pine.SCO.3.91.960518163651.13303D-1000000@sd.cts.com>

Picked up a Wells Gardner at the local swap meet today, and Moore's Receiver book is lost under a pile of "stuff" somewhere.

Did they make only the one model? Can't find a model # on this one. Looks a lot like a National NC-240, and uses mostly metal octal tubes. Must be a portable - wieghts about 60 lbs. and has handles on the top.

Anyone have a manual or schematic? Reasonable copy fees and postage gladly paid, of course?

Whatever happened to Wells Gardner?

John Kolb KK6IL jlkolb@cts.com

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: Brian Summers <bsummers@intranet.ca>  
Subject: WW11 mfg.query A(Crown)M  
Message-ID: <199605192044.QAA09258@hal.intranet.on.ca>

What WS4S is looking at is the insignia of what was the "Air Ministry" of the UK. Equipment bought for the RAF (Royal Air Force) would have been marked with that designation.

Those of us who grew up in the UK following WW11 fondly remember the masses of surplus equipment marked that way. Just as recent mailings have referred to Radio Row in Manhattan, London had its Lisle Street just off Leicester Square. Noted both for dealers selling surplus radio equipment, and young ladies (some not so young) selling an even older product. Maybe even better than surplus radios; after all, you've got it, you sell it, you've still got it.....

Incidentally, I recall brand new surplus AR88s going for 50 pounds sterling. HROs were 20 pounds - I had one with all its coils. Sure wish I had it now!

73, Brian, VE3JKZ

From boatanchors@theporch.com Sun May 19 11:47:22 1996  
From: Conard Murray <CFM@tntech.edu>  
Subject: WWII mfg. query A (crown) M  
Message-ID: <01I4VYGCW0MQ9KMB2B@tntech.edu>

Hello all,  
I have run across a couple of pieces of comm gear with the manufacturer identified with this logo;  
(The letter A) (graphic of a crown) (The letter M).  
The two rigs are a SCR-522 and a T-47/ART-13. The '522 has a WF-43 contract date on it.  
Any ideas?  
73 de Conard ws4s  
cfm@tntech.edu  
ws4s@midtenn.net  
conard@tntech.campus.mci.net

From boatanchors@theporch.com Sun May 19 20:32:27 1996  
From: nielw@ix.netcom.com (Niel Wiegand)  
Subject: Re: WWII mfg. query A (crown) M  
Message-ID: <199605191734.KAA10110@dfw-ix12.ix.netcom.com>

You wrote:

>

>Hello all,  
>I have run across a couple of pieces of comm gear with the manufacturer  
>identified with this logo;  
>(The letter A) (graphic of a crown) (The letter M).

>Any ideas?  
>73 de Conard ws4s

Conard,

I think this is the Canadian (or maybe British?) Air Ministry.

73, Niel